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023696
Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego CA 92121-1714

LM01/0801

EXAMINER

PEREZ GUTIERREZ, R

ART UNIT

PAPER NUMBER

2746

DATE MAILED:

08/01/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/158,938

Applicant(s)
Karmi et al.

Examiner
Rafael Perez-Gutierrez

Group Art Unit
2746



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle* 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-39, 41-61, 63, and 64 is/are pending in the application

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-39, 41-44, 49-59, and 64 is/are rejected.

☒ Claim(s) 45-48, 60, 61, and 63 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on Sep 22, 1998 is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 5 and 6

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement submitted on February 5, 1999 has been considered by the examiner and made of record in the application file.
2. The information disclosure statement filed March 25, 1999 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; *each publication or that portion which caused it to be listed*; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. Complete legible copies of the publications listed on the information disclosure statement are required.

Drawings

3. New formal drawings are required in this application. See the attached Notice of Draftsperson's Patent Drawing Review for appropriate corrections.
4. The drawings are objected to because **figure 1** doesn't comply with its description in the specification (page 9 line 1- page 10 line 8, page 15 lines 5-17, and page 16 lines 6-24). Numerous errors in the numbering of the elements (e.g. reference numbers not shown, different

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elements with the same number in the specification, etc...) has been found. Correction is required either on the figure, specification, or both.

Specification

5. The disclosure is objected to because of the following informalities: Definition of "BSM" (on page 4 lines 19 and 27) is required.

Claim Objections

6. **Claims 41-64** are objected to because of the following informalities:
- a) **Claims 40 and 62** are missing, therefore claims 41-61, 63 and 64 must be renumber as 40-60, 61 and 62; and,
 - b) On line 15 of **claim 63** insert --than-- after "longer". Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -- (b) the invention was patented or described in a printed

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publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-24, 28-39, 41-43, 54-58, and 64 are rejected under 35 U.S.C. 102(b) as being anticipated by **Tiedemann, Jr. et al. (U.S. Patent # 5,392,287)**.

Consider **claims 1, 2, 14, and 58**, Tiedemann, Jr. et al. clearly disclose a method for reducing power consumption in a mobile communications receiver in which a receiver (mobile station) receives a sequence of messages, each respective message containing a respective sequence number (signature), and wherein the receiver compares the respective sequence number (signature) of any message with at least one sequence number (signature) (column 8 lines 54-64).

Consider **claims 3, 4, and 6**, and **as applied to claims 1 and 2 above**, Tiedemann, Jr. et al. also disclose that the receiver enters an inactive state (sleeps) if a respective sequence number (signature) received matches a corresponding sequence number (signature) from the at least one sequence number (signature) (column 1 line 63 - column 2 line 4 and column 9 lines 16-20).

Consider **claims 5 and 7**, and **as applied to claims 1-4 and 6 above**, Tiedemann, Jr. et al. further disclose that the respective message is transmitted during each successive occurrence of the active state (during the inactive state (sleeping)) (column 1 lines 53-60).

Consider **claims 8, 9, 13, 15, 16 and 64**, and **as applied to claims 1 and 2 above**, Tiedemann, Jr. et al. also disclose that the receiver remains in the active state and wait (listen) for a respective message, until the respective message is received, if a respective sequence number (signature) received does not match a corresponding sequence number (signature) from the at least one sequence number (signature) (column 9 lines 10-16).

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Consider **claims 10-12, 17-22, 28-30, and 33-37**, and **as applied to claims 8, 9, 13, 15, and 16 above**, although not specifically disclose by Tiedemann, Jr. et al., it is inherently taught that the receiver enters the inactive state (sleeps) after the respective message is received (after listening stops, column 9 lines 16-20) and reenters the active state (wake up) after a predetermined time (e.g. 5.2 seconds) since the time range of the slot cycles disclosed by Tiedemann, Jr. et al. is between 2 and 128 seconds (column 4 lines 4-7).

Consider **claims 23, 24, 31, 32, 39, and 41-43**, and **as applied to claims 10-12, 17-22, and 28-30 above**, Tiedemann, Jr. et al. further disclose that the receiver (mobile station) receives a sequence of messages, each respective message containing a respective sequence number (signature), from a cellular telephone system (wireless communication system) (abstract and column 1 line 53 - column 2 line 5).

Consider **claims 38 and 54-57**, and **as applied to claim 1 above**, Tiedemann, Jr. et al. further disclose that the sequence of messages are overhead information (overhead messages, e.g. base station parameters, channel list, access parameters) (column 9 lines 14-16).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. **Claims 25-27, 44, 49-53, and 59** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tiedemann, Jr. et al. (U.S. Patent # 5,392,287)**.

Consider **claims 25-27, and as applied to claims 10-12, 17-22, and 28-30 above**, Tiedemann, Jr. et al. doesn't specifically disclose listening for a first, second, and third respective

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message, wherein listening for the third respective message is done after listening for the second respective message, wherein said listening for the second respective message is done after listening for the first respective message.

However, Tiedemann, Jr. et al. does provide a clear teaching that would suggest to a person of ordinary skill in the art that the listening steps of a first, second, and third respective message, as claimed by the Applicant, can be done since Tiedemann, Jr et al. clearly disclose that the respective sequence numbers (signature) of respective messages received at the mobile station are compared with corresponding sequences numbers (signatures) previously stored and if the respective sequence number (signature) of a respective message has changed, the mobile station listens to said respective message (column 8 line 54 - column 9 line 20).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Tiedemann, Jr. et al. in order to listen to a respective message having a respective sequence number (signature) that does not match a corresponding sequence number (signature) previously stored and, therefore, saving battery power since only a different message not previously received would be decoded.

Consider **claims 44, 49, 50, and 59**, and **as applied to claim 1 above**, Tiedemann, Jr. et al. further disclose the use of a hash function when assigning slot numbers (column 2 lines 48-52), therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the teachings of Tiedemann, Jr. et al. in order to use a hashing function when providing sequence numbers (signatures) of sixteen or thirty-two bit value

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to messages.

Consider **claims 51-53**, and **as applied to claim 1 above**, although Tiedemann, Jr. et al. doesn't disclose the use of counter when giving a sequence number (signature) to a message, the Examiner takes Official Notice that is well known in the art to use counters when assigning sequence numbers (signatures) to particular sequences of messages.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the teachings of Tiedemann, Jr. et al. with well known teachings in the art in order to provide sequence numbers (signatures) to messages using values that are taken from a counter.

Allowable Subject Matter

10. **Claims 45-48 and 60, 61, and 63** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office Action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the

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issue process.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Raith (U.S. Patent # 5,404,355) discloses a method for transmitting broadcast information in a digital control channel;

Tiedemann, Jr. et al. (U.S. Patent # 5,544,196) disclose a method and apparatus for reducing message collision between mobile stations;

Robbins et al. (U.S. Patent # 5,544,223) disclose a method and apparatus for paging a concentrated subscriber system for wireless local loop;

Wegrzyn (U.S. Patent # 5,729,540) discloses a system and method for scheduling messages on a common channel;

Kallin (U.S. Patent # 5,745,860) discloses a method and system of data transmission and reception in a mobile station;

Kivari (U.S. Patent # 5,752,201) discloses a power saving mode for a mobile terminal;

Jacobs et al. (U.S. Patent # 5,781,856) disclose a concentrated subscriber system for wireless local loop;

Harte (U.S. Patent # 5,794,137) discloses a method for increasing stand-by time in a

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radiotelephone;

Chander et al. (U.S. Patent # 5,909,651) disclose a short message service broadcast architecture;

Oksanen et al. (U.S. Patent # 5,918,170) disclose synchronization of a radiotelephone to received an overhead message train;

Shah (U.S. Patent # 6,029,065) discloses remote feature code programming for mobile stations;

Priest (U.S. Patent # 6,038,436) discloses a method and apparatus for conserving power in portable battery-operated radios.

13. Any response to this office action should be **mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-6306, (for formal communications intended for entry)

or:

(703) 308-6296, (for informal or draft communications, **please label**

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to

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Crystal Park II
2021 Crystal Drive
Arlington, VA 22202
Sixth Floor (Receptionist)

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rafael Perez-Gutierrez whose telephone number is (703) 308-8996. The examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached on (703) 305-4895. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-6306 and (703) 308-6296.

Communications via e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise required a signature, may be used by the applicant and should be addressed to [rafael.perez@uspto.gov].

All e-mail communications will be made of record in the application file. PTO employees do not engage in e-mail communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding

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should be directed to the receptionist whose telephone number is (703) 305-4700 or call customer service at (703) 306-5631.

RAFAEL PEREZ-GUTIERREZ
PATENT EXAMINER

Rafael Perez-Gutierrez
R.P.G./rpg

July 26, 2000


EDWARD F. URBAN
PRIMARY EXAMINER